

### Offprint from The Silk Road 11 (2013).

The Silk Road is an annual publication of the Silkroad Foundation, supplied in a print version to academic libraries and also freely available on the Internet.

The complete volume 11 is available on-line at <a href="http://www.silkroadfoundation.org/newsletter/vol11/srjournal\_v11.pdf">http://www.silkroadfoundation.org/newsletter/vol11/srjournal\_v11.pdf</a>>.

Information about submissions to the journal is available at <a href="http://www.silkroadfoundation.org/newsletter/vol8/SilkRoadinstructionsforauthors.pdf">http://www.silkroadfoundation.org/newsletter/vol8/SilkRoadinstructionsforauthors.pdf</a>.

# THE TRADE IN HORSES BETWEEN KHORASAN AND INDIA IN THE 13<sup>TH</sup> - 17<sup>TH</sup> CENTURIES

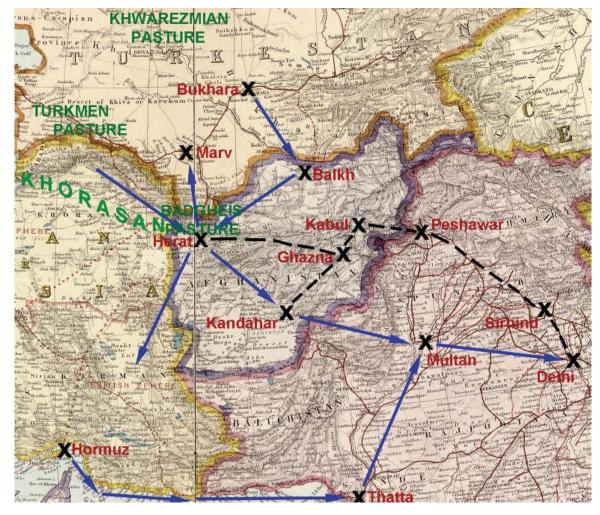
#### Ali Bahrani Pour

Shahid Chamran University of Ahvaz Ahvaz, Iran

This essay explores the history of the overland commerce in horses between Khorasan (northeastern Iran) and India in the 13<sup>th</sup>–17<sup>th</sup> centuries. The concentrations of nomadic peoples in Khorasan ensured an abundant supply of horses, and on the Indian end, continual military conflicts created a substantial demand. Yet invasions and plundering by nomadic tribes (the Nekudarids and various tribes in Afghanistan and along the roads of northwest India) were obstacles to the trade.

The horse trade in Eurasia has attracted considerable scholarly attention. Some of it has focused on China, where the demand for warhorses is considered to

Map showing the approximate route of the Khorasan-India Road and its connecting links (dotted lines), with the arrows suggesting schematically the directions of other routes. The base map published by Stanford in 1912 reflects, of course, early 20<sup>th-century realities. Source: Library of Congress <a href="http://memory.loc.gov/cgi-bin/query/h?ammem/gmd:@field%28NUMBER+@band%28g7420+ct001442%29%29">http://memory.loc.gov/cgi-bin/query/h?ammem/gmd:@field%28NUMBER+@band%28g7420+ct001442%29%29</a>.</sup>



have been one of the main reasons for the opening of the so-called Silk Roads, and trade in horses continued down through the centuries to be a central aspect of the relationship between China and its northern and western neighbors. Of particular interest here are the results of a conference entitled "Horses in Asia: History, Trade and Culture" held in Vienna in 2006 (Fragner et al. 2009). Several of the essays complement the present study but do not deal directly with the same issues. In particular, Ranabir Chakravarti wrote about demand and dealers in India, but only up to 1300. Ralph Kauz focused on exports via the maritime routes through the Persian Gulf, which was supplied mainly by horses from Arabia and southern Iran. A number of the articles concern the horse trade in China and Southeast Asia. Of more direct relevance to our subject, which is the northeast Iranian and central Asian horse trade on the overland routes, is an article published some time ago by Hirotoshi Shimo (1977) which explores the political and social situation of the Nekudarid nomads in Iran during the Ilkhanid period and helps clarify their role in the breeding and trade in horses in Khorasan.

#### Khorasan and its routes to India

Although the Mongol conquests at first ruined many cities along the Silk Road, the establishment of the Ilkhanid dynasty in Iran saw the restoration of some and the rise of others, among them Bastam, Herat, Samarqand, Sultaniyah, and Tabriz. East-West exchange flourished as never before thanks to the unification of much of Asia under Mongol rule.

Several important routes of trade and communication under the Mongols merit our attention here. From Kashgar, one branch of the Silk Roads went west via Samargand to Merv and Herat. From Herat the route continued west through Khorasan, traversing northern Iran through Sultaniyeh and Tabriz before passing through Asia Minor and ending in Constantiople (Pīrniyā and Afshar 1973, pp. 85-86; Afshar 1983, p. 765). A more northerly overland route (sometimes known as the "fur route") went through Mongolia and northern Xinjiang, with a branch down to Khwarezm below the Aral Sea, and continued on north of the Caspian to the capital of the Mongol Golden Horde at Saray on the Volga, before ending on the Black Sea. This route was important in part for its connection to areas of the Qipchaq steppes which were major producers of horses (Laufer 1919, p. 535).

Another, less-known route that we might term the "Khorasan–India Road" linked the Silk and the Fur Roads to the maritime Spice Route. It traversed some 127 parasangs (= 729 km) from Marv to Balkh. From there its route took it through the Darhabun pastures

and Badgheis (a rich stud for Khorasani and Mongol horse herds) and on to Herat, an additional distance of 84 parasangs (= 525 km) (Qazvīnī 2000, pp. 178-79). At Herat there were several options for continuing. One was to go on through Kabul, Peshawar, and Sirhind to Delhi (Kennedy 2002, p. 62a). Another was to head for Ghazna (modern Ghazni) or Kandahar, Multan (where there was customs house for horses), Sheshnoghar (another customs house) and Sind to the Indus delta at Thatta and "Bahr al-Sind" (the Sea of Indus = the modern Karachi Gulf) (Ibn Battuta 1998, I, pp. 366-68; Wassāf 1960, pp. 301-09). One could also reach the maritime route by going from Herat to Sistan, Mukran and the Persian Gulf. In the 13th - 17th centuries (until its conquest by the Europeans), Hormuz Island, as the principal station on this route, was controlled by the Muluk-e Hormuz (The Emirate of Hormuz Island). It was through here that the trade in horses from Oman, Yemen and areas of southern Iran on the Persian Gulf departed to the west coast of India (Teixeira 1902, p. 46; Ibn Battuta 1998, I, pp. 367-68; Dimashqī 2004, p. 261; al-Nadwi 1950/1933, pp. 110-11; Samarqandī 1946-49, pp. 777-83, 824-47; Kauz in Fragner et al. 2009, pp. 129-35).

#### Herat and its resources

The vast province of Khorasan enjoyed a variety of environments. Its plains had numerous pastures for horse training and nomadic life, and it was well located on the Silk Road. But its high snowy mountains were the main obstacles in the way of caravans in winter; so almost all of the trade journeys were postponed to the spring and summer.

The main bazaar of horse transport and the capital city of the Kart governors, Herat was surrounded by mountains, whose snows fed rivers like the Hari-rud (the river of Herat), Marghab and Hirmand, the main source of the fertility of the gardens and the famous grazing lands of Badgheis and Marvrud (Heravi 2007, pp.108-09; Qazvīnī 2000, p. 215). Turk and Mongol horse breeder nomads such as the Nekudari, Qaravonas, Oughani (Afghan), and other tribes had regularly camped and decamped there. After decades of plunder and attack, each one gradually took control of its own "yurt" (dominion and pasture). These tribes, which became almost like Persian natives, believed in Hanafi Sunni Islam and had economic relations with the "Tajiks" (the common name for native Persian peasants and townspeople). They thus shared an interest the exchange of manufactured commodities for agricultural and animal products (Homayun 1992, p. 229; Abrū 1939, p. 90).

Herat was an old and an important city, tracing its origin at least back to Achaemenid times. Although

it was ruined during Chinggis Khan's invasion, it was restored by its local rulers, in particular the Al-e Kart dynasty and in the 13th - 14th centuries became the flourishing capital city of Khorasan. Numerous professions and organized guilds, including ones related to horse riding and harnessing were to be found in bazaars of the city (Bākharzī 1992, p. 3). Herat had four principal bazaars, the most famous the "Bazaar-e Khosh" (the fine or the pretty bazaar). There was also another bazaar dedicated to horse exchange. There, the nomadic peoples from the Badgheis and even the Torshiz regions (modern Kashmar in Khorasan) came to offer their horses, some of which were the horses stolen by Qaravonas plunderers. In exchange, they purchased manufactured goods, especially metal wares (Ibid., pp. 51, 242; Abrū 1939, pp. 43-48). Thus, by the 14th century, Herat had been transformed from merely an exchange center for nomadic and urban products to a major city, and as such was the starting point for the Khorasan-India road. From Khorasan, presents such as horses, camels and even fruits were sent to the royal court of Tughlughid dynasty in Delhi (Ibn Battuta 1998, II, p. 146).

#### Studs along the road of Khorasan and in India

The most suitable grazing lands and greatest studs of Iran alongside the Silk Road were: Chaman-e Badgheis, Marghzar-e Radekan, Khabushan (modern Ghuchan) in northern Khorasan, Ghongqur-Olang,¹ Ujan (modern Bostan-abad), Dasht-e Mughan, and Chaldoran (in Ardabil province) (Marco Polo 1985, pp.266–67; Qazvīnī 2000, pp.173–78). The region of Siahkuh was somewhere northwest of Rey, and we may perhaps guess from the name that it was in hilly country suitable for pastoral nomads (Shimo 1977, p. 147). Until the late Safavid era, every spring there were 3000 grazing horses in studs at Basmenj (near Tabriz), Nisa, Hamadan, and 50000 other horses grazed in the pastures of Darband (a passage in the Caucasus mountains) (Chardin 1993, II, p. 496).

Malva province in central India was a corridor for transiting the imported horses to southern Indian provinces like Jajingar, which was considered to be the source of exported Indian elephants. Sometimes the merchants brought blond-, grey- or white-headed horses to exchange for the elephants. Horses in these colors were in demand by the Jajingar community (Tattavi and Qazvini 2003, VIII, p. 5153). In the mountainous region of Barkan situated between Sivi, Sitpur and Bakhar in India, were bred some good ("not less than Iraqi") colts with firm hooves suitable for riding in the mountains (Ma'sūm Bakkarī 2003, p. 130).

#### Horse breeds and their special applications

The most famous horse breeds in Persia in the 13th -14th centuries were Median (maybe the modern Kurdish species), Nisaiyan (a Parthian/Khorasanian breed used as workhorses in Khwarazm), Arabians from Arabia, Mesopotamia and Khuzestan, horses from Fars (the modern Ghasghaie, a Turkish breed2), and the breed of central Iran (Mazaheri 1993, I, pp. 36-39; Marco Polo 1985, p. 80; Fizgerald 1988/1935, pp. 459-60). According to some veterinarians' textbooks of the 13th - 16th centuries, each species had a special use, which meant that the horses were classified by such categories as "greyhound" or runners (Davande)3 (Nasawī 2005, p. 89), amblers or marchers (Ravande), for the mountains (Daghi), etc. Also, there were other divisions and designations like the horse's color, strain, manner of riding, and so on, that increased the number of criteria to more than 126 kinds (Faras-nāmah 1987, pp. 21-22, 161-65). In India, according to their breed and use, horses had been sorted out into four main categories: warhorses (Turkish, Qipchaq tribes' breed of Cumania), horses for routine riding (from the Badgheis region), racehorses (Arabians), and ceremonial horses (a pure Arabian breed) (Mazaheri 1993, I, pp. 36-39).

According to veterinarians and grooms of the 13<sup>th</sup> century, the best and the most expensive ones were the purebred greyhound (Arabian) horses from famous pedigrees: each tribe nominated their horses as their tribe's name. These breeds had made their riders proud, maybe because of their tall, wellmuscled, strong but lean gaskins and forelegs. Also they were very fast in galloping, attacks, and horse races so that they could seize from ten to one hundred other horses. Unlike the desert Arabians, these sturdy horses of the hills called *Atigh* (antique or pure) had stronger legs with firmer bones and better pedigrees. Since they were fed with dates and milk, rasing them was expensive. Their grooms also demanded higher fees for training them for war, celebration, hunting and ceremonial riding. They were then special gifts for the kings. Each pure Arabian horse could be worth as much as four thousand dinars (Faras-nāmah 1987, pp. 21-22). Ibn Battuta gave Sultan Mohammad bin Tughlugh two equipped horses, one worth 800 and the other 1600 dinars. In the Maldives, only the king and the ministers had the right, and of course the means, to own a horse (Ibn Battuta 1998, I, pp. 367-68; II, pp. 591, 609).

Kurdish horses of different tribes were of diverse breeds. They survived in mountainous, stony ecosystems, which made their legs lean, firm and well-muscled. Such breeds were useful for overweight riders, long distance journeys, polo and spear throwing. Indians bought Turkish and Cumanian horses, not only for their speed but also for their strength and their long strides on the march, since Indians used to cover their horses with heavy armor in war (*Faras-nāmah* 1987, pp. 21–22, 161–65).

The Akdash breed (crossbred and also loveable), probably developed from the Turkmen, Khorasani and maybe even Cuman horses, was the most patient and a suitable horse for heavily-equipped cavalry, and for riding over long distances. Bardun (Arabic: stump horses), Kowdan (also Arabic: slow and dunce) or Daghi (Turkish: mountain horses of Turkestan) were semi-wild species which Turkic nomadic people used to capture together with their colts in the spring and then trained them. This species was short but had strong bodies with long ears and very hard hooves, so that they did not need horseshoes. Though they were slow, they could survive long distances, and also performed well without rest on softer ground and in hot temperatures. There are quotes referring to some of them running 90 Parasangs (540 km) in "two nights and a day" (36 hours) without rest.

Though not considered to be a particularly desirable species, the Takharestanian or Afghan (mainly from northern Afghanistan) species usually had either a silver or dark red colored hide. It was, in fact, the best on winding paths and for *Boz-Keshi* (the sport in which teams of riders competed for control of a goat carcass).

Pied-colored horses had very special status among the imported horses, even in royal courts: many Indian miniatures show the Mughal sultans on pied horses. Although Safi, the veterinarian, had scorned this sort of horse, he also opined that Indian sultans chose the horses of this color since they were suited for sport. Besides, color variety was more common among Khorasanian, Turkish, and Turkmen horses due to the fact that there was no complete control on interbreeding in these mixed herds. However, Arabian horses sometimes bred hybrid colts called *Hajim* (from an Arab father and non-Arab mother) or *Meghraf* (vice versa) (Ibid., pp. 23, 36–41,139–40; Gīlānī 1997, pp. 36–37).

Until the 19<sup>th</sup> century, two breeds were raised in Bukhara and Kholam on the northern parts of the road of Khorasan. One was *Qara-Ba'ar* (or Uzbek), with its sub-species of: "Balkhi" (from Balkh = modern Mazar-i Sharif), "Qipchaqi" (from Sinjarak) and "Khanezād" (home-born) — all middle-sized, captured and sold in India for more than 50 rupees (see Table 1, p. 131 below). The other was the Turkmen horse from Turkmenistan and even from the Oman Sea (Afshar 2001, II, p. 239). The Uzbek was regarded as a suit-

able horse for travel, not for war. Turkmen horses had many sub-species, as each tribe had its favorite type. The Teke included the Ākhāl and Kur-öγli, both of whose horses were tall in stature with a pretty head, light bones, breeds swift and graceful for riding but not full-blooded. The Yomūt horses, on the other hand, had a smaller but stronger and magnificent body. The Kazakh horse originally was a semi-wild horse with a small body, long hair, large legs and heavy head. It could graze freely in all seasons and did not require provender. The preferred draught horse was a cross-breed, raised by the people of the Kokand region in Central Asia (Vámbéry 2008/1868, pp. 514–15).

## The military policies of the sultans of India and their influence on the horse trade

In India, especially during the 13th - 14th centuries there were many, usually military or political, causes for dependence on the horse imports. Indian Muslim dynasties beginning in the Ghaznavid period (977-1186) usually derived part of their legitimacy from jihad (sacred war) against non-Muslim rulers. The Ghaznavids were the first Muslim government to rule both Khorasan and north-western India and controlled the trade on the neighboring roads. The Ghurid dynasty (early 11th century to 1215) also pursued similar policies. Their successors, the sultans of Delhi (1206–1290), moved their capital from Ghur to Delhi, which then made jihad expansion even more of a priority. Such warfare continued under the Khalajid (1290-1320) and Tughlughid (1320-1412) dynasties and peaked in the time of the Bahmanids (1347–1528). Hence from the early 12th century on, the horse was the main merchandise to be exported to India. Beginning in the time of the Delhi Sultanate, political stability depended on the loyalty of Turkish slave cavalry, whose need for mounts had to be met (Baranī 1957 pp. 120-21).4

The Khalajis were more successful than their predecessors in securing their civil affairs and founding a more stable political structure, but they continued the same expansive policy into Hindu regions. Whereas the Muslims tended to import horses via the Khorasan road, Hindu authorities obtained their mounts via the Indian Ocean. Under 'Ala al-Din Mohammad (1296-1316), there was the additional pressure created by his successful resistance to the Mongol invasions (Baranī 1957, p. 62; Sirhindī 1931, pp. 71–74; Badā'ūnī 2001, I, pp. 126-28). However, it was the Hindu-Muslim wars which continued into the late Khalajid period. Khosro-Khan of Gujarat originally was a Hindu of low caste who then converted to Islam and emerged as commander-in-chief. He revolted against the Khalajid sultan, returned to his Hindu faith and ascended the throne of Delhi in 1320. In the same year, a Muslim commander, Tughlugh-Shah, rose against him and brought down the Khalajid dynasty, an event that intensified the conflict between Muslims and Hindus, further increasing the demand for horse imports.

The export of numerous Khorasani slave troops to India increased in the Tughlughid era, so that by the late 14<sup>th</sup> century, Khorasanis came to dominate the royal court of Delhi. At the same time, the horse trade flourished both with Korasan and beyond it. As Ibn Battuta noted in the mid-14<sup>th</sup> century, a merchant named Muhammad of Tekrit in the bazaar of Ghaznah (modern Ghazni) was purchasing horses, camels, and arrows to donate them to Mohammad b. Tughlugh. Ibn Battuta had also seen him in Aleppo, Syria (Ibn Battuta 1998, II, p. 20). Such wandering merchants of the Silk Road were the main players in the strategic horse and weapons trade.

Tamerlane's expansion in the late 14th century and his hegemony throughout the central Silk Road over much of Central Asia, Khorasan and into northern India, despite initial destruction, created at least short-lived political unity throughout the region and gradually encouraged trade in the long run. While war subsided in northern India, the Ghazi (zealous) Bahmanid Sultanate arose in Deccan instead (Firishta1988, I, p. 306; Cambridge History 1958/1928, III, pp. 387, 394). Therefore, the destination of exported horses via the Khorasan-India Road moved from Delhi to Deccan with a consequent increase in their price. In the early 15th century, each stallion cost 100 Russian rubles in India (Nikitin 1994/1857, p. 9). During Sultan Taj al-Din Bahman-shah's reign — his epithet was Sultan-e Ghazi, "the zealous Sultan" - Muslim expansion reached its zenith in Vidjanyangara. As a result, commercial relations between Iran and Deccan strengthened (Tabātabā 1936, pp. 41-45; Firishta 1988, I, p. 312), so that merchants like Khaje Khalaf Hasan of Basra strengthened their position in the Bahmanid royal court. Originally, he was a horse merchant who helped Ahmad-Shah of the Bahmanid dynasty to ascend the throne. As a result, during Ahmad's reign Khaje Khalaf was appointed as Mlek al-Tojjar (the chief of the merchants) (Tabātabā 1936, p.48) and Vakile Omur-e Saltanat (chamberlain or minister for royal affairs) (Firishta 1988, I, p. 320). Consequently, the horse trade increased so that in the late 15th century seven to eight thousand horses were annually exported via the road of Kabul to various parts of India and even as far southeast as Narsinga (Barbosa 1865, pp. 89, 90–92; Babur 1890, p. 81). During the same time, fifteen to twenty thousand caravans left India towards Khorasan, so that the governor of Portuguese India, Albuquerque, in his letter to Don Manuel I, stated that "everyone who possesses a Persian horse can govern throughout Deccan and Narsinga" (Zanjānī 2003, p. 58).

For adjusting the prices and eliminating the black market, 'Ala al-Din, the sultan of the Khalajid dynasty, issued decrees about various merchandise including the sale of horses:

- 1. To write the name of merchants of Delhi and around the country in a register, and to command them to bring their merchandise into the city and sell it according to the "Royal Rate" (*Nerkh-e Soltani*) in the caravansary of justice (*Saray-e 'Adl*).
- 2. To determine the grade of quality of the horses and establish their prices under the direct supervision of the Sultan.
- 3. Horse merchants must not sell their horses to the brokers. Both sides must guarantee not to do so. Otherwise the punishment would be banishment, prison or even execution.
- 4. If it became clear that a horse sold at a price different from the Royal Rate, all the guilty and innocent brokers in the city were to be punished!
- 5. The above process had to be supervised closely and to be recorded monthly.
- 6. A daily list had to be completed about all the animal transactions in the bazaar of the city (Delhi as the main bazaar of livestock), and had to be observed by the Sultan. Spies of the bazaar also should determine the correctness and truthfulness of the contents of the mentioned lists. [Firishta 1988, I, pp. 385–87]

On one hand, the above orders attest to the extensive volume of transactions made in the bazaar of Delhi involving horses; on the other hand, the direct supervision of the royal court over the prices demonstrates the strategic importance of the horses in the Indian army and society. Some of the Sufi lodges like that of Sheikh Farid al-din Ganje-Shekar branded their horses as endowed. so that brigands did not dare steal them (L'ali Badakhshī, p. 488).

# The Al-e Kart principality's economic policy for securing the Khorasan-India Road and for taking control of the studs

Like the Sultans of Delhi, the Al-e Kart principality emerged out of the Ghurid Sultanate. The first emir of the *Kart* dynasty was Malik Rokn al-Din b. Taj al-Din Kart's nephew and Sultan Ghias al-Din Ghuri's son-in-law and also the governor of Kheisar castle (modern Bamiyan, in northern Afghanistan). In the late 12<sup>th</sup> century during Sultan Jalal al-Din Khwarazmshah's reign in Herat and the Kusuyeh region, two emirs of the Kart family — Amir Fakhr al-Din and Amir Mahmud — held the appointment as *Janevardar* 

(groom or breeder). At the time of the Mongol invasion of the region, some of the Kart families migrated with the nomadic people of their dominion to Transoxiana but then later returned. In the first Mongol invasions, Herat city surrendered to Toluy, son of Chinggis Khan, and the Kart dynasty then survived as a protectorate down to Tamerlane's time (15<sup>th</sup> century) (*Faras-nāmah* 1987, pp. 36–41, 23, 139–140; Gīlānī, 1997, pp. 36–37).

After the initial Mongol invasions, Mongol nomadic people, especially the Oughani (Afghan) tribe, were settled alongside the Turkmens and Nekudari Turk-Mongol nomadic clans. All of them were horse breeders with busy Kheil-Khaneh (open stables for horse herds among the nomads). In 1242, as a tax in kind, they donated livestock, especially horses, to the Mongols. Some Mongol janevardars named Ghabartu (or Ghumu), Sukru and Tatimur (or Matimur) were envoys to the governor of Badgheis to gather these types of taxes for Batu, the Mongol khan in Russia. They were obligated to provide Olay (Mongolian: horses for the Mongol postal relays) from the Herat region. This custom lasted down to the time of Malek Shams al-Din Kart, who abandoned it (Abrū 1938, pp. 88-89; Abrū 1995, pp. 38-39; Mubārakshāh 1927, pp. 48, 31; Heravi 2007, p. 153). While the numbers surely are exaggerated, according to some sources, an attack on Herat by Il-khan Abaga resulted in the death of 450,000 horses. At very least the result must have been a blow to horse breeding in the region and led to a decline in the horse trade (al-Herawī 2004, pp. 311, 362; Badā'ūnī 2001, I, pp. 61-88; Vā'iz 2007, p. 48). In 1291 Il-khan Ghazan assigned Amir Nowruz, the main commander of his army, to revive Herat city and to restore its population. As a result of securing the trade roads and merchants' access to its bazaars, the city prospered.

# The rise of the tribes and their role in horse breeding: A benefit or an obstacle?

As mentioned before, tribes were the main horse breeders and also were the major plunderers, but how and why? In 1261, Nekodar, the chief of the Mongol Nekudari tribe, revolted against the Ilkhanid government. His brother, Tebsin-Oghul, accompanied by Shams al-Din, was commissioned to suppress him and plundered the *keil-khanes* (stables) of the Oghani tribe in the Oghanistan, Andakhay and Mustang regions (al-Herawī 2004, pp. 193–94, 229–34, 253–55, 297–99; Abrū n.d., p. 234; Heravi 2007, p.145). During Rukn al-Din's reign (1278–1305) Nekudari tribesmen plundered the Malan plain near Herat and captured its people. In 1295 and 1299, commanded by Dava, a Mongol prince of the Chaghatai clan, Nekudari in-

vasions came from Central Asia via the Silk Road to Khorasan, Yazd and Mazandaran directly, and later from Samarqand to Gujarat, Kombay, Khorasan, Kerman, Fars and Khuzestan. Although the Kart governor and his Oghani nomadic troops helped the Ilkhanids to turn back the enemy, extensive plundering sustained by the herds of Kurdish, Turkish, Turkmen and Oghani tribes along these routes resulted in at least a temporary decline in horse exports to India (Wassāf 1960, pp. 363, 367–70, 492; Rashīd al-Dīn 1994, II, pp. 1265, 1271-72, 1296, 1306). These examples indicate that at that time Nekudari tribes were an obstacle to the horse trade. Similar raids continued later, at least until 1514, when Badi'a al-Zaman, the Timurid prince, invaded Herat and plundered many horses (Khwandmir 2001, IV, p. 396).

Ghazan Khan granted Bugha, the Nekudari chief, a dominion in Iraq and ordered his tribe to cease their banditry. Because of their ill-repute, sometimes they had been unjustifiably blamed for robbery by others. But they rejected his offer, migrated to Sistan, and took refuge under Malek Nasir al-Din, the governor of Nimruz's court. Later, they attached themselves to Malek Fakhr al-Din of the Kart dynasty in Herat, where he appointed them as administrators of the city quarters, bestowed on them arms and horses, and employed them as a common troops against the Maleks of Nimruz. Henceforward Ghurid, Sajzi (Sistani) and Nekudari ethnic groups made raids on the roads of Sistan, Farah, and Ghohestan. Thus the coastal road of Mukran (Baluchistan) to Sind was unsafe, and its rival road of Khorasan flourished.

To prevent the Nekudari tribe from migrating from Ghohestan (the mountanous region near Gharjestan) to Garmsir (Sistan), Ghias al-Din, the Kart ruler (1308–1329), defeated and removed the tribe's chief Awji-Bola (1316) and then plundered his tribe, especially its herds. Amir Yasavol, the Ilkhanid military governor of Khorasan, taxed citizens of Herat, taking many Arabian horses that cost fifty thousand dinars (Ibid., pp. 602–03, 627, 643–45).

During Abu-Sa'id's reign as Il-khan, the Nekudari tribe was settled as a borderland army. So the tribe was reinstated on the road to India as a source for more horses. Some of the Il-khan's troops rebelled, looted one of his horse herds, and took refuge in Ghias al-Din's court. So Ghias al-Din prohibited exporting the animals. Many nomadic troops such as Nekudaris, Sistanis, Khalaj Turks, Baluchs, and Afghans were appointed as overseer troops, although many of the Baluch nomadic people remained in the Ghohestan Mountains. These examples indicate that the Kart governors had decided to subjugate and benefit from tribes such as Nekudaris and Afghans. Since studs

were the most important logistical component for any army (without them war was impossible), both in daytime and at night scouts and sentries were posted to protect them (Abrū 1938, p. 265; al-Herawī 2004, pp. 672–96, 698–99, 663–72, 742–45).

At the same time in India, under Sultan Mohammad bin Tughlugh (1324–1351), the third sultan of the Tughlughid dynasty (1320–1412), the economy prospered. As was the case with other merchants, Shahab al-Din Abu-Raja, originally a horse merchant, was given authority in the Nosari region. By the Sultan's order many shade trees were planted alongside the roads; a hospice or a caravansaray was built for each stage along the routes and provided with necessary supplies (Sihrindī 1931, pp. 97–99). His contemporary in Khorasan, Ghias al-Din, was likewise concerned to secure the roads for the merchants on whom the prosperity of his territory depended.

### The Afghans' role in horse commerce on the Khorasan road

From as early as 1299, Oughani (Afghan) nomads plundered horse studs throughout southern Iranfrom Shiraz, Kazerun, Hormuz, Shushtar, Zeidan, Khur-shif (near the port city of Bushehr) - and moved the horses to the Afghan realm in eastern Khorasan (Wassāf 1960, pp. 369–71). The location of pasture and horse studs in the Afghan territory was between Qunduz and Baghlan on the way from Bastam in Khorasan to India. In the mountainous region from Kabul to Kermāsh, Afghan brigands were robbing caravans like that with 4000 horses in which Ibn Battuta was departing to India, by the way of the Indian border custom-house in Shish-noghar (1341) (Ibn Battuta 1998, II, pp. 472-75). Moreover, the Afghans, thanks to the central geographical location of their territory, were horse traders in the road to India. An example is Bohlul, the founder of the Lodhi Sultanate in Delhi, who originally was a horse trader employed in the Indian army (around 1456) (Majumdar et al. 1960, pp. 186-91; Cambridge History 1958/1928, III p. 228).<sup>5</sup> Later during Akbar's reign in India, prince Ologh-Beg plundered an Afghan caravan and was exporting horses via the road of Ghazni-Qandahar-Kabul toward India (Abu-'l-Fadl 2006, p. 382). During the Safavid period, the pasture of Zele-khan near Qandahar was a station for supplying horses and food for travelers (Sīstānī 2004, p. 444).

## The impact of the collapse of the Ilkhanid kingdom on the horse trade along the Khorasan-India Road

The collapse of the Ilkhanid central government in Iran led the eastern tribes such as Nekudaris to submit to the Kart governors, so that the Kart principality increased its ability to control the tribes and studs. However, the plurality of local authorities in Iran led to insecurity in the roads and a decline in the horse trade. Under Malek Hafez (1329–31) and his brother Malek Hussein (1331–69) the Ghurid ethnic group (in northern Afghanistan) dominated the affairs of the Kart court. The Sarbedarid principality (1335–86) arose in Sabzevar (in western Khorasan) and expanded to encompass the entire province. The emergence of of the Tugha–Timurids (1336–1409) as the last local Mongol principality in Iran, their rivalry with the Sarbedarids, and also Amir Ghazghan's and then Tamerlane's revolt in Turkistan (Central Asia) led to insecurity along the Silk Road.

Despite this insecurity, according to Ibn Battuta in 1341, horse, raisin, almond and slave exports continued from Khorasan to Multan and India. In some trade centers of this road such as Ghonduz, horse stealing was punished severely. There the thief had to return the horse and nine additional ones as penalty, and if he could not pay, he either would be executed or his children sold as slaves (Ibn Battuta 1998, II, pp. 443–44, 465).

The Ghurid party, which dominated in the royal court of Herat, decided to assassinate Hussein. When he emerged from his residence, some Ghurid men surrounded him. In response, he provoked them to seize some horses of Mongol nomads which had been brought to be sold in the Horse Bazaar of Herat. In the resulting fracas, Hussein seized the opportunity to flee toward Ashkalcheh Castle on his famous purebred black horse. Such examples indicate the importance of horses in the community of Herat (al-Herawī 2004, pp. 317–25, 330–32, 343–53).

### The political and economic impact of Tamerlane's invasion of Khorasan

In 1376, Tamerlane's ambassadors came to Herat, an event that presaged a great historical change. Ghias al-Din announced his submission as a vassal of Tamerlane, although he was hardly rewarded for so doing: Miran-shah, Tamerlane's son, was sent to the Marghab and Badgheis plains, where he plundered the property of the nomads several times and took them off to his father's capital, Samargand, in 1380. This deprived the Herat principality of its main source of horses. He also conquered Torshiz castle (modern Kashmar) and its grassland environs that were ruled by the Sadidi family (Ali bin Sadid's sons) on behalf of the Kart governors of Herat. Although that region also had potential for horse breeding, its population was resettled elsewhere. Adding to the chaos, the ruler of the Golden Horde, Tokhtamysh, in alliance with a Chaghatai commander Ghamar Al-Din, attacked

Khorasan. After defeating them, Tamerlane ordered Miran-shah to execute Malek Mohammad and all the other members of the Kart royal family. So the century and a half of Kart rule ended, and the Khorasan-India road lay open to Timurid invasions (Ibid., pp. 322–53).

# Studs and the horse trade on the central part of the Silk Road: the road from Asia Minor to Khorasan and India

Horse exports along the Khorasan-India branch of the Silk Road included not only those bred in Khorasan but also others from the Kipchaq steppe (north of the Black Sea and Caucasus), Asia Minor and Azerbaijan. When he traveled through the territories of the Golden Horde in the first half of the 14th century, Ibn Battuta saw in the "Azagh" (Azov) plains herds of horses in which the animals were so numerous as to sell cheaply at a price of 50 to 60 dirhams (one Moroccan dinar) per head. Most of those horses were "Akdash" (crossbreed). As a sign of their wealth in horses, some of their owners for each herd of 1000 would attach a piece of felt to a rod on their wives' carts. Some carts had as many as ten such felt pieces. These horses would be exported in herds of 6000 to India. Each merchant usually had 100 to 200 horses, with every 50 of them under the supervision of a ghashi (in India, kalwan), a drover. This trade was so important that Indian rulers such as Tughlugh-Shah rose to power after first being a kalwan and Amir-e Kheil, Master of the Royal Stable, at the court of the Delhi sultans (Ibn Battuta 1998, I, pp. 366-67; II, pp. 503-04; Wassāf 1960, p. 302).

Another source of imported horses to India via the Silk Road was Iran. The most important studs in the plateau of Persia were located in Azerbaijan, the Gorgan region (in the northeast of Persia), the northern Khorasan plains, Khotal (the northern Oxus region), and Khwarizm (northern Transoxiana) (Abrū 1985, pp.43, 45, 48). The Mongol invasion pushed more Turk and Mongol tribes toward Persia. Each of these nomadic groups chose at least two appropriate *chaman* (Farsi: pasture) or *marghzar* (Farsi: grassland) as their own *yurt* (Turk.: dominion) or *olang* (Mong.: grassland) (*Mongolian* 1995/1960, p. 33) and begun regular vernal and autumnal migrations between them (Clauson 1972, p. 203; Smith 1999).

#### The horse trade and conditions affecting prices

In India, each imported horse cost from 100 Indian dinars (25 Moroccan dinars) to more than 500 dinars. Though some of them were stolen by brigands in Sind, and in the customs house of Shesh-Noghar horse merchants had to pay as a toll 6 silver dinars and in Multan one fourth of their stocks, it was a profitable trade. Sultan Mohammad b. Tughlugh abrogated

tolls, and instead ordained that Muslim merchants pay the Islamic tax, *zakat* (from 2.5 to 5 percent of the total value) and non-Muslims the *oshriyyah* (tenth) (Ibn Battuta 1998, I, pp. 366–67; II, pp. 503–04).

The sources provide some information about individual merchants and officials and how their activity affected the trade. Just before Tamerlane's invasions, the traders from Badgheis came to Herat to sell their horses (Badā'ūnī 2001, I, p. 157). During the reign of the Tughlughid Sultan Firuz-shah (1389-91), a merchant from Khorasan, Shams al-Din of Damghan, was appointed as governor for the Indian province of Gujarat. He had to present 200 Arabian horses annually as well as other taxes to the royal court of Delhi (Ibid., I, p. 173). In 1547 Mirza Kamran, the governor of Herat, marched to Ghur and Kabul, meeting and plundering the horses of an arriving caravan so that every one of his warriors acquired two horses. Then he headed northwards to Ghazni. Between Qandahar and Badakhshan he learned that a caravan of many horses was coming to a spot named Barik-karan; so he seized them and brought them to Ghazni (Tattavi and Qazvini 2003, VIII, p. 5703).

In 1593, Akbar, the Mughal emperor of India, ordered an adjustment in the prices and banned the export of horses from his country, with exceptions requiring a written permit from the royal court (Badā'ūnī 2001, II, p. 273). During his battles on the road of Khorasan which linked the main pastures and cities such as Ghazni, Kahmard, Kabul, Badakhshan, and Andarab, by chance Akbar met a great caravan of horses from Iraq and Khorasan under the direction of Mir-seyved-Ali Sabzevari which was heading toward India. Akbar bought many of the horses at four or five times the going price in order to use them in his battles in the area (Abu-'l-Fadl 2006, p. 441). On another occasion when he was marching from Qandahar to Kabul, he bought many Iraqi horses from Turkmen merchants who were taking them India (Ibid. 2006, p. 360).

The Safavid court in Iran was very concerned about the apparently insatiable demand of the Mughals for horses and the impact this had on prices. According to one report, in the 17<sup>th</sup> century, Indian traders purchased annually in Kabul as many as 100,000 horses from Central Asia (Alam 1994, p. 209). In 1634, the Mughal ambassador Mir-Homai came to Isfahan to ask the Safavid ruler for horses to be exported to India (al-Zamān Qazvīnī 2004, p. 259). When an envoy from the court of Aurangzeb, the Mughal Sultan, came to Isfahan, Shah Abbas II expressed to him his displeasure at the constant need of India for horses (Afshar 2001, II, p. 100). In late Safavid Iran, the price of the horse was high because of the extensive exports to Mughal India and Ottoman Anatolia, exports

which required a royal permit (Chardin 1993, II, p. 739). Violations could be punished severely: when the Indian ambassador resident at the court of Abbas II bought 60 to 70 excellent horses without a permit, in a rage the Shah had them killed (Ibid., III, p. 1301).

Until 1812, there were customs houses along the road from Khorasan to India which collected taxes for horses exported from Turkestan: the rate in Peshawar was three rupees per horse, in Jalal-abad two rupees, in Kabul four rupees, in Bamian two rupees. Indeed, there is substantial evidence about the importance of the horse trade via Afghanistan to India from Central

Asia and Iran well into the early modern era, a subject that has been explored in detail by Jos Gommans (1994, 1999/1995) and goes well beyond the scope of our discussion here. It is no surprise then that the Governor of Balkh would send Turkish horses as a present to the governor of Kabul (Afshar 2001, II, p. 233). Until the 19<sup>th</sup> century, Uzbek horses from Central Asia were exported to Afghanistan and India and Turkmen horses to Iran (Vámbéry 2008/1868, p. 515).

A summary of selected data concerning the horse trade between Khorasan and India is presented in the following table.

Table 1: The origin, price and the volume of the exported horses to India via the Khorasan Road

Breed and origin of horse	Price in the origin bazaar	Price in the destination bazaar	Date and other details of transaction	Source
"A good horse"		Between 30 to 40 tenge (Chaghatai silver coin) at foot of mountains in Badayon, Amruhe and Sonbohl	reign of Ghiath al-din Bolbon (1266–87)	Firishta 1988, I, p. 264
Khwarizmid horse	A fine black horse costs 35 dinars in Khwarizm.	India	Owned by Ibn Battuta, around 1349	Ibn Battuta, I, p. 439.
horses of the first grade		between 100 and 120 <i>tenge</i> in the bazaar of Delhi	according to the price regulation policy of Kalajid Sultan 'Ala-al-din (1296-1316) and his clas- sification of the imported horses	Firishta 1988, I, p.386
horses of the second grade		between 80 and 90 <i>tenge</i> in the bazaar of Delhi		Firishta 1988, I, p. 386
horses of the third grade		between 65 and 70 <i>tenge</i> in the bazaar of Delhi		Firishta 1988, I, p. 386
horses of the fourth grade (pack-horse)		between 100 and 120 <i>tenge</i> in the bazaar of Delhi		Firishta 1988, I, p. 386
tall, pretty and tame Turkmen horse		between 20 and 100 <i>tele</i> (gold coin?) in the bazaar of Bukhara	Shaybanid dynasty (1500-99)	Afshar 2001, II, p. 252
a great caravan of horses from Kho- rasan and Iraq		sold to Akbar's army in Badakhshan at four or five times the normal price	Akbar, the Great Mughal, bought them for his royal stable	Abu-'l-Fadl 2006, p. 441.
Iraqi horses	bought from Turkmen merchants	at the sellers' desired price	Akbar bought all the 1000 horses.	Abu-'1-Fadl 2006, p. 360

Iraqi, Turkic, and cross-bred ("Mo- jannas")		at the sellers' desired price	Akbar bought all the 45 horses in 1593 in Delhi.	Badā'ūnī 2001, II, p. 155
full-blooded horse		65 tumens (650000 dirhams) equal to 250 French gold Louis coins	in the royal stable for Shah Abbas II 's horses of the first grade	Chardin 1993, III, p. 1225
horse of the sec- ond grade		more than 50 French gold Louis coins	in the royal stable for Shah Abbas II 's horses of the second grade	Chardin 1993, III, p. 1225
horse of the other grades		less than 50 French gold Louis coins	In the royal stable for King Abbas's II horses of the other grades	Chardin 1993, III, p. 1225
very varied horses of different prices		sold for 30 to 80 tumens	19 <sup>th</sup> century	Sykes 2001, II, p. 794
good and very expensive Turk- men or horses of Khorasan		at least 200 tumens		Sykes 2001, II, p. 794
Uzbek middle- sized confiscated horse	In the bazaars of Balkh and Kholam cheaper than in Bukhara	7 to 20 <i>tele</i> (golden coin?) in the bazaar of Bukhara	Shaybanid dynasty (1500–99)	Afshar 2001, II, p. 252
Qara-Ba'ar (or Uzbek) with its breeds of: "Balkhi", "Qipchaqi" and Khane-zād (home- born)		50-200 rupees (old coins dating to the time of Mohammad Shah or Ahmad Shah)	19 <sup>th</sup> century	Afshar 2001, II, p. 239
Turkmen horse: Teke (Ākhāl and Kur-öγli) and Yomūt		100 ducats for an average Turkmen horse, up to 300 ducats for a good one. A minimum of 30 ducats each.		Vámbéry 2008/1868, pp. 514-15

## Other factors stimulating the continuing need for horse imports into India

We have already seen how the military ethos and needs created a constant demand for important horses in India between the Mongol and Mughal periods. The statistics in Table 2, while vastly incomplete, give at least some idea of the scale of that demand. Horse ownership, riding and hunting were marks of elite status; the policies of jihad in Hindu regions pursued by the Delhi sultans and the Khalaji, Tughluqi and Bahmani dynasties in Hindu regions required large numbers of cavalry mounts. Of course many of these horses were killed in battle (Heravi 2007, p. 105), but it was impossible to replace them from native sources. The climate in India was not suited to horse breeding,

oats for feed were in short supply, and such subsitutes as fried peas and boiled milk simply would not do. Some Indian riders tended to gallop the horses to excess in the heat, which weakened and destroyed them (Abrū,1985, pp. 43–48; Barthold 1975, p. 17; Ibn Battuta 1998, I, pp. 366–67; II, pp. 503–04; Wassāf 1960, p. 302). Also the horse merchants used tricks to ensure the continuity of this trade: they exported the horses without shoeing them so their hooves soon wore out and the horses became useless. Sometimes the merchants or the breeders gelded the horses at the age of four, so that they could not be used for breeding in India (Wassāf, p. 302; Nagpuri MS; Mohammad MS, p. 56). So the nomads who bred the horses could be guaranteed of continuing demand.

Table 2: Quantity of horses in Iranian and Indian armies

Ownership	Quantity	Time and place	Source
Amir Ekhtiar al-Din, the head groom	30000 horses	reign of the Khwarizm Shah Sultan Mohammad (1200-1220) / Khwarizm	Ashtiani 2005, p. 40
Jöchi's present to his father Chinggis Khan	20000 white horses	Imported from Golden Horde to Fanakathon the bank of Oxus river	Juvayni 2006, I, p. 111
horses plundered from Hindus by Malik Nayeb	8000 horses	Artakal and Talang regions in India / 1310	
Kalajid Sultan 'Ala-al- Din (1296–1316)	some thousand horses	plundered in Diugir and taken to Deccan	Badā'ūnī 2001, I p. 120
Yaghi Basti, son of Amir Chupan	6000 horses	In grazinglands in Sah- and, foothills of moun- tains near Tabriz / 1340	Bidlīsī 1998, II, p. 43
Emir Mas'oud, the Sarbedar governor of Khorasan and Mazandaran provinces (1338-43)	14000 horses	in his royal stud in the provinces	Āmulī 1969, p. 189
Bahmanid Sultan 'Ala- al-Din (1375–78)	7000 or, according to some reports, 70000 horses	Telingana / 1388	Tattavī and Qazvīnī 2003, VII, p. 4362; al- Husaynī 2000, p. 274
Shahrukh, son of Tamer- lane	7000 horses	Given to him as the tax for security of Gilan Province	Yazdī 1999, II, p. 1231
Shir Khan, the Afghan king of Delhi 1540-45	900000 horses in his army		al-Husaynī 2000, p. 286

### Horse breeding and markets in Central and Western Asia

As early as the 10th century, horses from Turkestan and Khotal (Afghanistan) were exported to Western Asia (al-Muqaddasī, II, p. 477). In the 13th century, Khwarizm and Ghohestan (western ranges in Khorasan province) exported to other places including India (Polo 1938, I, pp. 121-22). The horse of Khwarizm was among the least expensive and cost just four silver dinars where it was bred (Ibn Battuta 1998, I, p. 434). Khotal horses were also famous in Mongol Central Asia (Qazvīnī 1994, p. 602). At least from the time of the Chaghataid dynasty, the plains around Bukhara were suitable pastures for the local horse breeders (Wassāf 1960, p. 70). Under the Shaybanids in the 16<sup>th</sup> century there was a market on Mondays, Thursdays and Fridays located behind the Emam's gate of Bukhara for selling the Turkmen and Uzbek horses (the latter from Balkh and Kholam on the road of Khorasan) (Afshar 2001, II, p. 262). Some of these horses were exported to Kabul (Ibid., p. 241). Seventy-five percent of postal and fast running horses in Mughal India were imported directly from from Uzbekistan or from the Ottoman Empire via the road of Khorasan (Schimmel 2007, pp. 261, 283). There was a similar fair at Showra-Khan in Kyrgyzstan down into the 19th century (Vámbéry 2008/1868, p. 437). From 14th century on into the 19th, the bazaar for horse commerce in Herat was located behind the "darvazeye Qandahar" ("the gate toward Qandahar") and was the place where the most valuable horses imported from Bukhara were sold (Khwandmir 2001, IV, p. 541; Vámbéry 2008/1868, p. 354). Another important market for Central Asian horses was located in Kastamonu province (what is now Turkey, on the southern shore of the Black Sea) - the "Bazaar-e Asb-Forushan" ("the bazaar of horse sellers" (Ibn Battuta 1998, 1, p. 384). There is much additional evidence from the Mongol period onwards about the demand for Central Asian horses, which were exchanged for many different kinds of merchandise, including slaves from Tibet.

#### Conclusion

Because of the nomadic social structure of Ilkhanid society and its military appropriations, horse exportation from the Qipchaq steppe, Asia Minor, Azerbaijan,

and inner Iran and especially from Khorasan to India flourished in the 13<sup>th</sup> – 14<sup>th</sup> centuries. Western horses and Indian weapons of high quality were imported to Iran. Horses exported from Khorasan were usually of the Turkish and Kurdish breeds best suited for military activities. But valuable Arabian horses were commonly exported by the Kish and Hormuz principalities via the Indian Ocean, and were exchanged for the spices of India. So we have here both a trade focusing on military needs and a trade in luxury goods.

One phenomenon associated with the nomadic social structure of the communities along the trade routes was the banditry which had a direct influence on the trade. Nekudari and Oghani Mongol tribes played a twofold role: as the horse breeders but also as brigands on the Khorasan-India route and along the Silk Road. By the early 14<sup>th</sup> century, they increasingly became serious partners in this lucrative trade.

In the late 14th century, principalities such as Sarbedar (western Khorasan), the Tugha-Timurid (eastern Khorasan), the malek of Nimruz (Sistan and Baluchistan), Al-e Mozaffar (Yazd and Kerman), and Al-e Chupan (Azerbaijan) tried to take a larger share of the commerce along the Silk Road. However, the most important role was assumed by the Al-e Kart Principality (in southern Khorasan), which by virtue of its special political and military position could monopolize and guarantee the security of trade along the Khorasan-India Road. Its territorial policy was secured by loyalty first to the Ilkhanids and later to the Timurids. But the Kart rulers also were able to pursue independent economic policies and might defend the trade routes with the help of neighboring powers such as the Chaghataids or the Golden Horde. Even though in the 13th and 14th centuries they were expanding toward southern Afghanistan and Sind and were approaching the northern gates to India, they maintained close relations with the sultans of Delhi. This then helped them maintain their monopoly on the horse trade.

#### About the author

An Assistant Professor of History at the Shahid Chamran University of Ahvaz, Iran, **Ali Bahrani Pour** specializes on the economic and social history of Iran and Eurasia in the 13<sup>th</sup> and 14<sup>th</sup> centuries and on the Perso-Muslim diasporas along the Silk Roads and in the Indian Ocean region. His Ph.D. research on the foreign trade of Iran in the Ilkhanid period has resulted in a number of articles; he is also involved in a project concerning relations between Iran and China in the Timurid period. E-mail: <a href="mailto:</a> alibahranipour@gmail.com>.

#### References

Abrū 1939

Hāfiz Abrū. Zayl-i Jāmi al-Tavārikh-i Rashīdī [The appendix of Rashid al-Din's book, 'Jami' al-Tawārikh], ed. Khān-Bābā

Bayānī. Tehran: Elmi, 1317/1939.

Abrū 1959

\_\_\_\_\_. Cinq opuscules de Hafiz-I Abru: concernant l'histoire de l'Iran au temps de Tamerlan, ed. Felix Tauer. Archiv orientélni, Supplementa, 5. Prague: L'Academie Tchécoslovaque des Sciences, 1959.

#### Abrū 1995

Hafiz Abrū. "Tashih-e Noskhe-ye Khatti Tarikh-e Al-e Kart" [Edition and annotations on the M.S of the history of Kart family], unpublished M.A thesis by Alireza Ala-al-Dini. Shahid Bahashti University, 1995.

#### Abrū n.d.

\_\_\_\_\_. *Jughrafiyā-ye Hāfez Abrū*. MS. National Library of Russia, No. Dorn 90, photocopy in the Iranian Ministry of Foreign Affairs (also, ed. and published by Sadiq Sajjadi, Tehran, 1997).

#### Abu-'l-Fadl [Abu-'l-Fazl] 2006

Abu-'l-Fadl ibn Mubārak. *Akbarnāma* [The book of Akbar], ed. Gholamreza Tabatbaee-majd. Tehran: Najomane Athar va mafakhere farhangi, 2006. (English tr. by Henry Beveridge, 3 vols. Calcutta: Asiatic Society of Bengal, 1897-1910.)

#### 'Afif 1888-1891

Shams Sirāj 'Afīf. *Ta'rīkh-i-Fīrūz Shāhī* [The History of Firouz-Shah]. Ed. Maulavi Vilayat Hosain. Calcutta: Baptist Mission Press, 1888-1891.

#### Afshar 1983

Iraj Afshar "Jong-e Chini ya Safine-ye Ilani-Posi" [The collective treatise on China or an Iranian voyage]. *Ayande*, Vol.8, No.11 (Feb. 1983).

#### Afshar 2001

Īraj Afshār. *Daftar-i Tārikh: Majmū'ah-'i asnād va 'manābi'-i tarīkhī* [The history book: a collection of documents and historical sources], 2 vols. Tehran: Bunyād-i Mawqūfāt-i Duktur Mahmūd Afshār, 2001.

#### Alam 1994

Muzaffar Alam. "Trade, State Policy and Regional Change: Aspects of Mughal-Uzbek Commercial Relations, c. 1550-1750." *Journal of the Economic and Social History of the Orient* 27/3 (1994): 202-227.

#### Āmulī 1969

Awlīyā Allāh Āmulī. *Tārikh-i Rūyān* [The history of Ruyan region], ed. Manūchihr Sutūdah. Tehran: Bunyād-i Farhang-i Īrān, 1969.

#### Ashtiani 2005

Abbas Eghbal Ashtiani. *Tarikh-e Moghol*. [The history of Mongols]. N.p., n.d., 2005.

#### Babur 1890

Zahiruddin Muhammad Babur Mirza. *Tūzak-i Bāburī: Bābūrnāma* [The autobiography of Babur], Beyram-Khan, tr., Mirza Mohammad Malek al-Kottab, ed. Bombay: Chitraprabaha Pr, 1890. [In English: *The Baburnama: Memoirs of Babur, Prince and Emperor*, tr. W. M. Thackston, Washington, D.C., 1996.]

#### La'li Badakhshī 1997

La'l-bayg La'lī Badakhshī. *Thamarāt al-Quds min Shajarāt al-Ons*, ed. Kamāl Hāj-Seyyed-Javādī. Tehran: Pazhouheshgah, 1997.

#### Badā'ūnī 2001

'Abd al-Qādir ibn Mulūk Shāh Badā'ūnī. *Muntakhab al-Tawārīkh* [The selected history] 3 vols. Eds. Ahmad Alī Sāhib and Tawfīq Subhānī. Tehran: Farhangi, 2001. (Also, English tr. by George S. A. Ranking, W. H. Lowe and Wolseley Haig, 3 vols., Bibliotheca India, work no. 51. Calcutta: Asiatic Society of Bengal, 1864-1869, and later eds.).

#### Bākharzī 1992

'Abd al-Vāsi' Nizāmī Bākharzī. *Maqāmat-i Jāmī* [The biography of Jāmī], ed. Najīb Mayīl Heravī. Tehran: Ney, 1992.

#### Baranī 1957

Ziyā' al-Dīn Baranī. *Ta'rīkh-i Fīrūz-Shāhī* [The history of Firuz-Shah], Sheikh Abd-al-Rashid ed. Aligarh: Muslim University of Aligarh, 1957. (In English: tr. by H. M. Elliot and John Dowson, various eds. incl. Lahore, 1974.)

#### Barbosa 1865

Duarte Barbosa. *A Description of the Coasts of East Africa and Malabar in the Beginning of the Sixteenth Century,* tr. Henry E. J. Stanley. Works issued by the Hakluyt Society, no. 35. London: Hakluyt Society, 1865.

#### Bartol'd 1979

Vladimir V. Bartol'd. *Guzidah-e Maqālāt-e tahqīqī* [Selected articles], tr. Karīm Keshāvarz. Tehran: Amīr Kabīr, 1357/1979.

#### Bidlīsī 1998

Sharaf-ad-Dīn Ibn-Shams-ad-Dīn Bidlīsī. *Sharaf-nāma tārikh-i mufassal-i Kurdestān* [Sharaf's book: the comprehensive history of Kurdistan]. Tehran: Asaatir, 1998.

#### Cambridge History 1958/1928

The Cambridge History of India. Vol. III. Turks and Afghans. Ed. Wolseley Haig. Delhi: S. Chand and Co., 1958 (reprint of 1928 ed.).

#### Carpini 1984

Giovanni di Plano Carpini. *Safarname-ye Carpan* [Travels of Carpini], tr. Val-allah Shadan and Angela di Giovanni Romano. Tehran: Farhangsara, 1984.

#### Chardin 1993

Jean Chardin, *Safarname-ye Shardan*, tr. Eghbal Yaghmaei. Tehran: Toos, 1993. (based on *Voyages du chevalier Chardin, en Perse, et autres lieux de l'Orient*, L. Langlès, ed. Paris: Le Normant, 1811.)

#### Clauson 1972

Gerard Clauson., An Etymological dictionary of Pre-thirteenth-century Turkish, Oxford: Clarendon Pr., 1972.

#### Dimashqī 2004

Shams al-Dīn Muhammad ibn Abī Tālib Dimashqī. *Nukhbat al-dahr fī 'Aja'eb al-barr-e va al-bahr* [The selected book of its time on the wonders of earth and sea], ed. Hamīd Tabībiyāh. Tehran: Asatir, 2004 (ealier ed., 1978).

#### Faras-nāmah 1987

Dū Faras-Nāmah-i mansūr va manzūm dar shinakht-i nizhād va parvarish va bīmārihā va darmān-i asb [Two guide-books on the breeding of the horse, its genealogy, its diseases and their cure], ed. Alī Sultānī Gird Farāmarzī. Tehran: University of Tehran and McGill University, 1987.

#### Firishta 1988

Mohammad Qāsim Hindū Shāh Astarābādī Firishta. *Ta'rīkh-i Firishta: Gulshan-i Ibrāhīmī*. Delhi: Nul-Keshvar, 1988 [in English: *The History of Hindostan*, tr. by Alexander Dow, various eds.]

#### Fitzgerald 1988/1935

C. P. Fitzgerald. *Tarīkh-e Farhang-e Chin* [China: a short cultural history], tr. Asmail Dawlatshahi. Tehran: Elmi va Farhangi, 1988 [first ed. in English, London, 1935].

#### Fragner et al. 2009

Bert G. Fragner, Ralph Kauz, Roderich Ptak and Angela Schottenhammer, eds. *Pferde in Asien: Geschichte, Handel und Kultur / Horses in Asia: History, Trade and Culture.* Veröffentlichungen zur Iranistik, Nr. 46. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2009.

#### Gīlānī 1997

Nizām al-Dīn Ahmad ibn Muhammad Gīlānī. *Mizmār-i Dānish* [A textbook on horses from the 16<sup>th</sup> century], ed. Nādir Hā'irī. Tehran: Markaz-e Nashr-e Dāneshgāhī, 1997.

#### Gommans 1994

Jos Gommans. "The Horse Trade in Eighteenth-Century South Asia." *Journal of the Economic and Social History of the Orient* 37/3 (1994): 228-250.

#### Gommans 1999/1995

\_\_\_\_\_. The Rise of the Indo-Afghan Empire, c. 1710-1780. Delhi etc.: Oxford University Pr., 1999 (repr. of Leiden: Brill, 1995 ed.).

#### al-Herawī 2004

Sayf ibn Muhammad ibn Ya'qub al-Herawī. *Ta'rikh Name-ye Herat* [The history of Herat]. Gholamreza Tabatabi-Majd, ed. Tehran: Asatir va Markaze Bein-ol-Melali-ye Goftoguve Tamaddonha. 2004.

#### Heravi 2007

Qāsem ebn-e Yusuf-e Abu Nasri Heravi. *Resale-ye Tariq-e Qesmat-e āb-e Qalb* [A Treatise on the Way of Water Apportionment in Qolb]. Meyel Heravi, introd. and ed. Tehran: Institute for Humanities and Cultural Studies, 2007.

#### Homayun 1992

Naser Takmil Homayun. "Negahi be Marv az hamle-ye Moghol ta payan-e dolat-e Nederi." [A look at the city of Marv from Mongol invasion to the end of the Afsharid dynasty]. Majalle-ye tahghighat-e Joghrafiaei (Pajouheshgah) [geographical researches quarterly], 1992/7-8: 225-42.

#### Hunği 2005

Fadlallāh ibn Rūzbihān Hunğī, *Mihmān-nāma-i Buhārā* (*Tārih-i pādishahī-i Muhammad Šaibani*) [Book of the guest of Bukhara: The history of the Padishah Muhammad Shaibani], ed. Manūchihr Sutūda. Tehran: Elmi Farhangi, 2005 (earlier

ed., 1962; German tr. by Ursula Ott: *Transoxanien und Turkestan zu Beginn des 16. Jahrhunderts.* Freiburg, 1974).

#### al-Husaynī 2000

Khvurshāh ibn Qubād al-Husaynī. *Tārikh-i Ilchī-i Nizām Shah* [the history of ambassador Nezam-Shah], ed., Mohammadrezī Nasīrī and Koichi Haneda. Tehran: Anjuman-i Āsār va Mafākhir-i Farhangī,, 2000.

#### Ibn Battuta 1998

Abū 'Abd-Allāh Muhammad b. 'Abd-Allāh al-Lawātī al-Tanjī Ibn-Battuta. *Safarnāma-ye Ibn-Battûta* [The Voyages of Ibn Battuta], tr. Mohammad 'Alī Muvahhed. 2 vols. Tehran: Agah, 1998. (Also, in English: *The Travels of Ibn Battuta, A.D. 1325-1354*, tr. and ed. H.A.R. Gibb. 5 vols. Works issued by the Hakluyt Society, 2<sup>nd</sup> ser., nos. 110, 117, 141, 178, 190. London: Hakluyt Society, 1968-2000).

#### Juwaynī 2006

'Alā' al-Din Atā Malik b. Muhammad Juwaynī *Kītāb-ī Tārikh-i Jahāngushāy* [The history of the world-conqueror], ed. Muhammad Qazvini. Tehran: Amir Kabir, 2006. (In English: *The History of the World-Conqueror*, tr. and ed. J. A. Boyle. Manchester: Manchester Univ. Pr., 1958; new ed., Seattle; London: Univ. of Washington Pr., 1997.)

#### Kennedy 2002

Hugh Kennedy, ed. *An Historical Atlas of Islam*. 2<sup>nd</sup> ed. Leiden: Brill, 2002.

#### Khetā'ī 1993

'Alī Akbar Khetā'ī. *Ketāy-nāma* [A book on China (a text describing a voyage to China in the 16<sup>th</sup> century)], ed. Īrāj Afshār. 2<sup>nd</sup> ed. Tehran: Markaz-i Asnād-i Farhangī-i Āsiyā, 1993 (1<sup>st</sup> ed., 1978).

#### Khwandmir 2001

Giyāth al-Dīn ibn Homām al-Dīn Hwānd-Amīr [Khwandmir]. *Tārīkh-e Habib al-Siyar* [The history of the friend of biographies], ed. Abdol-Hossein Navaei. Tehran: Khayyam, 2001. (In English: The History of India as Told by Its Own Historians. The Muhammadan Period, Vol. 4, ed. H. M. Eliot; John Dowson. London: Trubner, 1872, pp. 154–212, online at <a href="http://www.archive.org/stream/cu31924073036745#page/n0/mode/2up">http://www.archive.org/stream/cu31924073036745#page/n0/mode/2up</a>).

#### Laufer 1919

Berthold Laufer. Sino-Iranica: Chinese Contributions to the History of Civilization in Ancient Iran. With Special Reference to the History of Cultivated Plants and Products. Field Museum of Natural History Publications, Anthropological Series, Vol. 15, No. 3. Chicago: Field Museum of Natural History, 1919.

#### Majumdar et al. 1960

Ramesh Chandra Majumdar, et al. *The History and Culture of Indian People*. Vol. 6: *The Delhi Sultanate*. Bombay: Bharatiya Vida Bhavan, 1960.

#### Ma'sūm Bakkarī 2003

Muhammad Ma'sūm Bakkarī. *Tārikh-i-Sind: Tārikh-i Ma'asūmī* [The history of Sind]: Masoum's history], ed. 'Umar Muhammad Dāudpota. Tehran: Asatir, 2003.

#### Mazaheri 1993

Aly Mazaheri. Gādda-i abrīsham, 2 vols. Tehran: Pazuhis-

gah, 1993. (Persian translation of La Route de la soie, Paris: S.P.A.G. (Papyrus), 1983.)

#### Mohammad MS

Mohammad b. Mohammad. *Faras Nameh* (A horse instructor's textbook from the 14<sup>th</sup> century), MS Central Library of University of Tehran, no.1/3065.

#### Mongolian 1995/1960

Mongolian-English Dictionary, ed. Ferdinand D. Lessing; comp. Mattai Haltod et al., Bloomington, IN: Indiana University; The Mongolia Society, 1995 (repr. ed. with minor corrections; original ed., Berkeley, Univ. of California Pr., 1960).

#### Mubārakshāh 1927

Fahr-ad-Dīn Mubārakshāh Marvarrūdī. *Tārīkh-i Fakhr'ud-Din Mubarākshāh, Being the Historical Introduction to the Book of Fakhr'ud-Din Mubarākshāh Marvarrūdī,* ed. E. Denison Ross, London: The Royal Asiatic Society, 1927.

#### al-Muqaddasī 1982

Mohammad ibn Ahmad al-Muqaddasī, Ahsan al-taqīsīm fī ma'rifat al-aqalīm. [The best divisions in the knowledge of the regions], ed. 'Alī Naqī Munzawī, Tehran: Sherkat-e mo'allefan va motarjeman, 1982. (Based on de Goeje's Leiden 1906 ed.).

#### al-Nadwi [Nadvi] 1950/1933

Sayyid Soleyman Al-Nadwi. "Al-'elāghāt al-tejariyyah bein al-'Arab wa al-Hind" [Commercial relations of India with Arabia]. *Taghafatu'l Hind: a quarterly on the culture of India*, 1950/March, June and December. (Originally published as "Commercial Relations of India with Arabia," *Islamic Culture: an English Quarterly* (Hyderabad) 7/2 (1933): 281-308).

#### Nagpuri MS

Qazi Hasan bin Valad Mohammad Taher Nagpuri. *Tohfat al-Fors* [The gift of Persians: on horse breeding], Central Library of the University of Tehran, MS no. 3065/1.

#### Nasawī 2005

Muhammad ibn Ahmad Nasawī. *Sīrat Jalal al-Dīn Minkubirnī* [The biography of Jalal al-Din Menkoberni], ed. Mujtaba Mīnuvī. Tehran: Elmi Farhangi, 2005.

#### Nikitin 1994/1857

Athanasius Nikitin. "The Travels of Athanasius Nikitin of Twer: Voyage to India." In: *India in the Fifteenth Century. Being a Collection of Narratives of Voyages to India,* Tr. and ed. Richard H. Major. Works Issued by the Halkuyt Society, no. 22. Frankfurt am Main: Institute for the History of Arabic-Islamic Science, 1994 (repr. of ed., London: Hakluyt Society, 1857).

#### Pīrniyā and Afshar 1973

Mohammad Karīm Pīrniyā., and Karāmat Allāh Afshar. *Rah va Rubat* [The road and the caravansary]. Tehran: Sazman-e Melli Hefazat-e Asar-e Bastani Iran, 1973.

#### Polo 1938

Marco Polo. *Description of the World*, tr. and ed. A. C. Moule and Paul Pelliot. 2 vols. London: Routledge, 1938.

#### Polo 1985

\_\_\_\_\_. *Safarnāme-ye Markūpūlū* [Travels of Marco Polo], tr. and ed. Sajjadi and Romano. Tehran: Guyesh,1985.

#### Qāshānī 2005

Jamal al-Din 'Abd-Allāh b. 'Alī Abu al-Kasim Qāshānī. *Ta'rikh-i Uljāītū Sultān* [The History of Oljeitu], ed. Mahīn Hambly. Tehran: Elmi Farhangi, 2005 (repr. of 1969 ed.).

#### Oazvīnī 1994

Zakāriyā ibn Muhammad Qazvīnī. *Asār al-bilād va akhbār al-'ibād* [The monuments of the lands and the histories of the people]. Tehran: University of Tehran, 1994.

#### Qazvīnī 2000

Hamd-Allāh Mustawfī Qazvīnī. *Nuzhat-al-Qulub* [The happiness for hearts: a geographical dictionary], ed. S. M. Dabirsiaghi. Qazvin: Hadis-e-Emruz, 2000.

#### Rashīd al-Dīn 1994

Rashīd al-Dīn Tabīb. *Jami' al-Tawārikh* [A Compendium of Chronicles], M. Rowshan and M. Musavi, eds. Tehran: Nashre Alborz, 1994. [in English, tr. by Wheeler M. Thackston, Sources of Oriental languages and literatures, 45. Cambridge, MA, 1998).

#### Samarqandī 1946-49

Kamāl al-Dīn 'Abd al-Razzāq ibn Ishāq al-Samarqandī. *Matla' as-sa' dayn wa majma' al-bahrayn* [The rise of two fortune stars and the conjunctions of the seas], ed. Mohammad Shafi'. Lahore: Islamic Research Society,1946–49. (Also in English, in: *India in the Fifteenth Century*, ed. and tr. R. H. Major. London: Hakluyt Society, 1857.)

#### Sani al-Dawlah 1997

Muhammad Hasan Khān Sanī' al-Dawlah. *Tatbīq-i lughāt-i jugharafiya'ī-i qadīm va jadīd-i Īrān* [A comparative guidebook on old and modern names geographical names of Iran], ed. Mir-Hashem Mohaddes, 2<sup>nd</sup> ed. Tehran: Amīr-Kabīr, 1997.

#### Schimmel 2007

Annemarie Schimmel. *Dar qalamraw-yi khanan-i Mughul* [In the realm of the Mughal khans], tr. Farāmarz Najd-Samī'ī. Tehran: Amīr-Kabīr, 2007 [tr. of *The Empire of the Great Mughals: History, Art and Culture*, London, 2004 and other eds.]

#### **Shimo 1977**

Hirotoshi Shimo. "The Qaraunas in the Historical Materials of the Ilkhanate." *The Memoirs of the Toyo Bunko* 35 (1977): 130–81.

#### Sihrindī 1931

Yahyā b. Ahmad b. 'Abd Allāh al-Sīhrindī. *Ta'rīkh-i Mubārak Shāhī* [The history of Mubarak-Shah]. S. M. Hidayat Hosein, ed. Calcutta: Asiatic Society of Bengal, 1931. (English tr. by Henry Beveridge, various eds.)

#### Sīstānī 2004

Malik Shāh Husayn ibn Malik Ghiyāth al-Dīn Sīstānī. *Ehyā' al-moluk* [Reviving the kings], ed. Manūchihr Sotūdih. Tehran: Elmi Farhangi, 2004.

#### **Smith 1999**

John Masson Smith, Jr. "Mongol Nomadism and Middle

Eastern Geography: Qīshlāqs and Tümens." In: Reuven Amitai-Preiss and David O. Morgan, eds. *The Mongol Empire & its Legacy*. Leiden etc.: Brill, [1999]: pp. 39–56.

#### Sykes 2001

Percy Sykes. *Tarikh-e Iran [A History of Persia]*, tr. Mohammad-Taghi, Fakhr-da'ei-Gilani. 7<sup>th</sup> ed. Tehran: Afsoon, 2001.. (This translation is based on: Percy Molesworth Sykes, *A History of Persia*, 2 vols. London, 1915 [3rd ed., 1930]).

#### Tabātabā 1936

'Alī ibn 'Azīz Allāh Tabātabā. *Burhān-i Ma'āsir* [The explanation of the predecessors], Delhi: Matba'at Jāmi'ah Dihlī, 1936.

#### Tarikh-e Iran 2000

*Tarikh-e Iran-e dowreye teimurian* [The Cambridge History of Iran. Vol. 6. The Timurid and Safavid Periods, ed. Peter Jackson and Laurence Lockhart], tr. Yaghub Agand. Tehran: Jami, 2000. (Original English ed., 1986).

#### Tattavi and Qazvini 2003

Ahmad Tattavī and Āsaf Khān Qazvīnī. *Tārīkh-i Alfi: Tarikh-i Īrān va kishvārhā-yi hamsāyah dar sālhā-yi 850-984 H.* [The history of the millennium: The history of Iran and neighboring countries in the years 850-984 H.]. 8 vols. Tehran: Pajoheshgah, 2003.

#### Teixeira 1902

Pedro Teixeira. *The travels of Pedro Teixeira with his "Kings of Harmuz," and Extracts from His "Kings of Persia,"* tr. and ed. William F. Sinclair. Works issued by the Hakluyt Society, 2<sup>nd</sup> ser., no. 9. London: Hakluyt Society, 1902.

#### Vā'iz 2007

Asīl al-Dīn al-Husaynī Vā'iz. *Maqsad al-iqbāl-i sultānīyah va marsad al-āmāl-i khāqānāyah*, ed. Reza Māyil Haravī. Tehran: Institute for Humanities and Cultural Studies, 2007.

#### Vámbéry 2008/1868

Ármin Vámbéry. Siyāhat-e darvīshī durūghīn dar khānāt-e Āsyā-ye Miyānah [A false Sufi's travels in the Khanates of Central Asia], tr. Fath-'Alī Khvājah Nūriyān. Tehran: 'Elmi Farhangī, 2008 (tr. of Voyages d'un faux derviche dans l'Asie Centrale de Téhéran à Bhakhara & Samarcand, par le grand désert Turkoman. Paris, 1868; this is an abridged translation of the English edition).

#### Wassāf 1960

Shihāb al-Dīn 'Abd-Allāh b. 'Izz al-Dīn Fadl-Allāh Shīrāzī Wassāf. *Tarikh-e Vassaf (Tajzīyat al-Amsār wa-Tazjīyat al-A'sār)* [Vassaf's History], ed. Muhammad Mahdī Esfahānī. Tehran: Ibn Sina; Tabriz: Jafari, 1338 (1959/60); repr. of Bombay, 1269/1853 ed.).

#### Yazdī 1999

Sharaf ad-Din 'Alī Yazdī. Zafar-nāma: ta'rīīhi-i umūmyi mufassal-i Īrān dar daura-yi Tīmūriyān, 2 vols. eds. Saeed mir-Mohammad-Sadegh and Abd-ol-hosein Navaee. Tehran: Majles-e Shora-ye Eslami, 1999.

#### al-Zamān Qazvīnī 2004

Muhammad Tahīr Vahīd al-Zamān Qazvīnī. Tārikh-i jahān

*ārā-yi 'Abbāsī* [The world adorner history of Abbas], ed. Sa'īd Mīr Muhammad Sādiq. Tehran: Pajoheshgah, 2004.

#### Zanjānī 2003

Mahdi Aqā Muhammad Zanjānī, tr. *Asnad-i ravabit-i tarikhi-i Iran va Purtughal: salha-yi 1500–1758*. Tehran: Vizarat-i Umur-i Kharijah, 2003. [translation of *Das relações entre Portugale a Pérsia 1500–1758: catálogo bibliográfico da exposição comemorativa do XXV centenário da monarquia no Irão*, Lisbon, 1972.]

#### Notes

1. A Mongol word that means: the stud of bay horses or hollow pasture, namely the modern Chaman Soltaniyyah (*Mongolian* 1995/1960, p. 33).

- 2. This was a Turkmen breed which usually had a white blaze on its forehead. It also is the name of a modern Turkis tribe in Fars province.
- 3. This breed could save the life of its rider because of its fast running.
- 4. For more detail, the standard work is Simon Digby, War-horse and Elephant in the Delhi Sultanate: a Study of Military Supplies (Oxford, 1971), which I have not been able to consult.
- 5. The pattern by which those involved in horse breeding and commerce leveraged that expertise for political advancement can be seen in various periods down into the 18th century. For that later period, see Gommans 1999/1995, esp. pp. 113ff, where he shows how horse traders became princes.